UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/585,815	07/12/2006	Kuk-hyun Han	Q95632	6267

23373   7590   10/17/2011
SUGHRUE MION, PLLC
2100 PENNSYLVANIA AVENUE, N.W.
SUITE 800
WASHINGTON, DC 20037

EXAMINER
HANCE, ROBERT J

ART UNIT	PAPER NUMBER
2421	

NOTIFICATION DATE	DELIVERY MODE
10/17/2011	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

USPTO@sughrue.com
sughrue@sughrue.com
PPROCESSING@SUGHRUE.COM

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address* --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS,
WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on <u>12 December 2010</u>.

2a) ☐ This action is **FINAL**.   2b) ☒ This action is non-final.

3) ☐ An election was made by the applicant in response to a restriction requirement set forth during the interview on
_____; the restriction requirement and election have been incorporated into this action.

4) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

5) ☒ Claim(s) <u>1-19</u> is/are pending in the application.

    5a) Of the above claim(s) _____ is/are withdrawn from consideration.

6) ☐ Claim(s) _____ is/are allowed.

7) ☒ Claim(s) <u>1-19</u> is/are rejected.

8) ☐ Claim(s) _____ is/are objected to.

9) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

10) ☐ The specification is objected to by the Examiner.

11) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

12) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a) ☐ All   b) ☐ Some *   c) ☐ None of:

       1. ☐ Certified copies of the priority documents have been received.

       2. ☐ Certified copies of the priority documents have been received in Application No. _____.

       3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage
application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail. Date _____.

5) ☐ Notice of Informal Patent Application

6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1.　　A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 12/13/2010 has been entered.

Response to Arguments

2.　　Applicant's arguments filed 12/13/2010 have been fully considered but they are not persuasive.

　　Applicant argues on page 8 of the Remarks that the combination of references does not disclose that the "predetermined pattern of channel change inputs comprises the channel change input for the selected channel." Applicant states that this is the case because in the combination of references, changing a skip list requires an act of first inputting a predetermined pattern of channel change inputs, and then separately inputting a selected channel. Examiner respectfully asserts that the references still read on the claims as currently presented. In the combined system of Yamamoto, Soundararajan, and Yuen, a user can first switch from one skip list to another by inputting a predetermined combination of channel changes, then switch to a channel that was not on a previous skip list. A user can select this channel using the <u>same</u>

"channel change input" (for example, channel up) that was used in the predetermined

combination of channel changes. In this case, the selected channel does not satisfy "a

predetermined reference" (the list that was switched _from_), a predetermined pattern of

channel change inputs is received (to switch between lists), and "the predetermined

pattern of channel change inputs comprises the channel change input received by the

user input unit for the selected channel" as recited in claim 1. The claims as written do

not require that the predetermined pattern of channel changes and the channel

selection comprise the same _instance_ of the same channel change input.

Claim Rejections - 35 USC § 112

3.   The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly
> claiming the subject matter which the applicant regards as his invention.

4.   Claims 9-16 are rejected under 35 U.S.C. 112, second paragraph, as being

indefinite for failing to particularly point out and distinctly claim the subject matter which

applicant regards as the invention. Claim 9 recites the limitation "the user input unit" in

line 14. There is insufficient antecedent basis for this limitation in the claim.

5.   Note: Claim 1 is drawn toward an apparatus comprising a series of "units" which

perform certain steps. This claim does not contain language typically associated with

112 6th paragraph (i.e. means for, step for, unit for, etc), and therefore is _not_ being

interpreted as invoking 112 6th paragraph. If Applicant wishes to invoke 112, 6th

paragraph for these claim limitations, Examiner suggests amending the limitations to

read "unit _for_ …"

Claim Rejections - 35 USC § 103

1.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

2.   Claims 1-2, 4-5, 7-10, 12-13, and 15-19 are rejected under 35 U.S.C. 103(a) as

being unpatentable over Yamamoto et al., US Pub No. 2002/0178449 in view of

Soundararajan in view of Yuen et al., US Patent No 5,488,409.

As to claim 1 Yamamoto discloses an apparatus for dynamically managing a

user's favorite channels, the apparatus comprising:

a user input unit receiving a channel change input from the user (Fig. 1: 4;

[0028]);

a channel list storage unit (Fig. 1: 2; [0032]) storing an entire channel list

comprising channels receivable using a tuner (Fig. 2; [0032]): channel map 15 contains

all channels receivable) and channel preference information regarding the user's

preference degrees for channels (Fig. 5B; [0043]-[0045] - channel map 22 is used to

store user channel preference information regarding which channels are to be skipped);

a control unit calculating a preference degree for a channel selected in response

to the channel change input received by the user input unit; and an output unit providing

content of the selected channel according to calculation of the control unit, wherein the

control unit provides the content of the selected channel through the output unit in response to the channel change input if the calculated preference degree for the selected channel satisfies a predetermined reference ([0048]-[0051] - when a user changes channels up (or down), the next highest (or lowest) channel on the channel map is checked to see if it is on the skip list (i.e., the channel's preference degree is obtained, or calculated, from the channel map). If the channel is on the skip list (i.e. if the preference degree calculation does not satisfy a predetermined reference), it is not tuned, and the next highest (or lowest) channel is then checked. This continues until a channel not on the skip list is found).

Yamamoto fails to disclose movement to a channel that does not satisfy the channel preference degree.

However, in an analogous art, Soundararajan discloses movement to a channel that does not satisfy the channel preference degree ([0040] – different control lists can be moved between).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the system of Yamamoto with the teachings of Soundararajan by enabling users to switch between different sets of lists containing different user preferences, the rationale being to allow users to have more control over how channels are surfed.

The combined system of Yamamoto and Soundararajan fails to disclose analyzing a pattern of channel change inputs; that the control unit provides the content of the selected channel through the output unit if the calculated degree for the selected

channel does not satisfy the predetermined reference and a predetermined pattern of channel change inputs is received by the user input unit, wherein the predetermined pattern of channel change inputs makes possible movement to a channel that does not satisfy the channel preference degree; and wherein the predetermined pattern of channel change inputs comprises the channel change input received by the user input unit for the selected channel.

However, in an analogous art, Yuen discloses switching between functions in a television receiver by entering a predetermined sequence of keys on a user input unit (col. 6 lines 46-50).

It would have been obvious to one of ordinary skill in the art to modify the combined system of Yamamoto and Soundararajan to allow the entering a key sequence or pattern of key entries, as taught by Yuen, to initiate a function such as switching between a favorite channel list and an entire receivable channel list. This predetermined pattern of inputs would make possible movement to a channel that is not a preferred channel. The rationale for this modification would have been to allow this function to be initiated without providing any additional special function keys, and thereby avoiding cluttering a user input device with extra keys. In this combined system, a predetermined pattern of channel change inputs switches between skip lists. A user can first switch from one skip list to another by inputting a predetermined combination of channel changes, then switch to a channel that was not on a previous skip list. A user can select this channel using the same "channel change input" (for example, channel up) that was used in the predetermined combination of channel

changes. In this case, the selected channel does not satisfy "a predetermined

reference" (the list that was switched <u>from</u>), a predetermined pattern of channel change

inputs is received (to switch between lists), and "the predetermined pattern of channel

change inputs comprises the channel change input received by the user input unit for

the selected channel".

   As to claim 2 the combined system of Yamamoto, Soundararajan, and Yuen

discloses the apparatus of claim 1, wherein the channel preference information

is an accumulation of times while the user stays at each channel (Soundararajan

[0036]-[0040]).

   As to claim 4: Claim 4 calls for changing to the next consecutive channel whose

calculated preference degree does not satisfy the predetermined reference (i.e. is not a

favorite channel) by inputting a pattern of "channel up - channel down - channel up" or a

pattern of "channel down – channel up – channel down." In making selections in the

television environment it is typical in the art to enter a key sequence or combination of

key entries to activate a desired function. For example, Yuen et al. disclose that

sequences of conventional keys can be entered to initiate functions, rather than

providing special function keys (col. 6 lines 46-50).

   It would have been obvious to one of ordinary skill in the art to modify the

combined system of Yamamoto, Soundararajan, and Yuen to include any key sequence

or pattern of key entries to activate any function or any program, since applicant has not

disclosed that the specific pattern of key sequences solves any stated problem or is for any particular purpose and it appears that the system would operate or perform equally well with any key sequence.

As to claim 5 the combined system of Yamamoto, Soundararajan, and Yuen disclose the apparatus of claim 4, wherein when the calculated preference degree for the selected channel does not satisfy the predetermined reference of the selected channel whose content is provided according to the pattern of the channel change inputs, the control unit provides the content of the selected channel through the output unit if the selected channel is present between two channels that have preference degrees satisfying the predetermined reference and that are adjacent to the selected channel (see rejection of claim 4 – a non-favorite channel will be tuned to after the input of a particular sequence of keys. Therefore, if a non-favorite channel is present between two favorite channels and the mode-switching sequence of keys is input, the non-favorite channel will be displayed).

As to claim 7 combined system of Yamamoto, Soundararajan, and Yuen disclose the apparatus of claim 1, wherein the predetermined pattern of channel change inputs is that 'channel up' or 'channel down' is received as the channel change input a pre-determined number of consecutive times (see similar reasoning in the rejection of claim 4. Pressing a key a predetermined number of consecutive times to perform a

given function is analogous to entering a predetermined sequence of keys to perform a
function)

It would have been obvious to one of ordinary skill in the art to modify the
combined system of Yamamoto, Soundararajan, and Yuen to allow for pressing a key a
predetermined number of times to activate any function or any program, since applicant
has not disclosed that the specific pattern of key sequences solves any stated problem
or is for any particular purpose and it appears that the system would operate or perform
equally well with any key sequence.

As to claim 8 the combined system of Yamamoto, Soundararajan, and Yuen
disclose the apparatus of claim 1, wherein the content is a broadcast program
(Soundararajan [0027]).

As to claim 9 Yamamoto discloses a method of dynamically managing a user's
favorite channels, the method comprising:

receiving a channel change input from the user using (Fig. 1: 4; [0028]) using an
apparatus that stores an entire channel list comprising channels receivable using a
tuner (Fig. 2; [0032]: channel map 15 contains all channels receivable) and channel
preference information regarding the user's preference degrees for channels (Fig. 5B;
[0043]-[0045] - channel map 22 is used to store user channel preference information
regarding which channels are to be skipped);

calculating a preference degree for a channel selected in response to the
received channel change input; and providing content of the selected channel according

to calculation of the control unit, wherein the content of the selected channel is provided

if the calculated preference degree for the selected channel satisfies a predetermined

reference ([0048]-[0051] - when a user changes channels up (or down), the next highest

(or lowest) channel on the channel map is checked to see if it is on the skip list (i.e., the

channel's preference degree is obtained, or calculated, from the channel map). If the

channel is on the skip list (i.e. if the preference degree calculation does not satisfy a

predetermined reference), it is not tuned, and the next highest (or lowest) channel is

then checked. This continues until a channel not on the skip list is found).

Yamamoto fails to disclose movement to a channel that does not satisfy the

channel preference degree.

However, in an analogous art, Soundararajan discloses movement to a channel

that does not satisfy the channel preference degree ([0040] – different control lists can

be moved between).

It would have been obvious to one of ordinary skill in the art at the time of the

invention to modify the system of Yamamoto with the teachings of Soundararajan by

enabling users to switch between different sets of lists containing different user

preferences, the rationale being to allow users to have more control over how channels

are surfed.

The combined system of Yamamoto and Soundararajan fails to disclose

analyzing a pattern of channel change inputs; providing the content of the selected

channel through the output unit if the calculated degree for the selected channel does

not satisfy the predetermined reference and a predetermined pattern of channel change

inputs is received by the user input unit, wherein the predetermined pattern of channel

change inputs makes possible movement to a channel that does not satisfy the channel

preference degree; and wherein the predetermined pattern of channel change inputs

comprises the channel change input received by the user input unit for the selected

channel; and wherein the predetermined pattern of channel change inputs comprises

the channel change input received by the user input unit for the selected channel.

However, in an analogous art, Yuen discloses switching between functions in a

television receiver by entering a predetermined sequence of keys on a user input unit

(col. 6 lines 46-50).

It would have been obvious to one of ordinary skill in the art to modify the

combined system of Yamamoto and Soundararajan to allow the entering a key

sequence or pattern of key entries, as taught by Yuen, to initiate a function such as

switching between a favorite channel list and an entire receivable channel list. This

predetermined pattern of inputs would make possible movement to a channel that is not

a preferred channel. The rationale for this modification would have been to allow this

function to be initiated without providing any additional special function keys, and

thereby avoiding cluttering a user input device with extra keys. In this combined

system, a predetermined pattern of channel change inputs switches between skip lists.

A user can first switch from one skip list to another by inputting a predetermined

combination of channel changes, then switch to a channel that was not on a previous

skip list. A user can select this channel using the same "channel change input" (for

example, channel up) that was used in the predetermined combination of channel

changes. In this case, the selected channel does not satisfy "a predetermined

reference" (the list that was switched <u>from</u>), a predetermined pattern of channel change

inputs is received (to switch between lists), and "the predetermined pattern of channel

change inputs comprises the channel change input received by the user input unit for

the selected channel".

     As to claim 10 the combined system of Yamamoto, Soundararajan, and Yuen

discloses the method of claim 9, wherein the channel preference information

is an accumulation of times while the user stays at each channel (Soundararajan

[0036]-[0040]).

     As to claim 12 Claim 12 calls for changing to the next consecutive channel

whose calculated preference degree does not satisfy the predetermined reference (i.e.

is not a favorite channel) by inputting a pattern of "channel up - channel down - channel

up" or a pattern of "channel down – channel up – channel down." In making selections

in the television environment it is typical in the art to enter a key sequence or

combination of key entries to activate a desired function. For example, Yuen et al.

disclose that sequences of conventional keys can be entered to initiate functions, rather

than providing special function keys (col. 6 lines 46-50).

     It would have been obvious to one of ordinary skill in the art to modify the

combined system of Yamamoto, Soundararajan, and Yuen to include any key sequence

or pattern of key entries to activate any function or any program, since applicant has not

disclosed that the specific pattern of key sequences solves any stated problem or is for

any particular purpose and it appears that the system would operate or perform equally

well with any key sequence.

As to claim 13 the combined system of Yamamoto, Soundararajan, and Yuen

disclose the method of claim 12, wherein when the calculated preference degree for the

selected channel does not satisfy the predetermined reference of the selected

channel whose content is provided according to the pattern of the channel change

inputs, the control unit provides the content of the selected channel through the

output unit if the selected channel is present between two channels that have

preference degrees satisfying the predetermined reference and that are adjacent

to the selected channel (see rejection of claim 4 – a non-favorite channel will be tuned

to after the input of a particular sequence of keys. Therefore, if a non-favorite channel

is present between two favorite channels and the mode-switching sequence of keys is

input, the non-favorite channel will be displayed).

As to claim 15 the combined system of Yamamoto, Soundararajan, and Yuen

disclose the method of claim 9, wherein the predetermined pattern of channel change

inputs is that 'channel up' or 'channel down' is received as the channel change input a

pre-determined number of consecutive times (see similar reasoning in the rejection of

claim 4. Pressing a key a predetermined number of consecutive times to perform a

given function is analogous to entering a predetermined sequence of keys to perform a function)

It would have been obvious to one of ordinary skill in the art to modify the combined system of Yamamoto, Soundararajan, and Yuen to allow for pressing a key a predetermined number of times to activate any function or any program, since applicant has not disclosed that the specific pattern of key sequences solves any stated problem or is for any particular purpose and it appears that the system would operate or perform equally well with any key sequence.

As to claim 16 the combined system of Yamamoto, Soundararajan, and Yuen disclose the method of claim 9, wherein the content is a broadcast program (Soundararajan [0027]).

As to claim 17 the combined system of Yamamoto, Soundararajan, and Yuen discloses the apparatus of claim 1, wherein the control unit calculates the preference degree based on the stored channel preference information (Yamamoto [0043]-[0045]; [0048]-[0050] – the decision of whether or not to tune a channel is made by calculating the preference degree of that channel, which entails referencing the channel map 22).

As to claim 18 the combined system of Yamamoto, Soundararajan, and Yuen discloses the apparatus of claim 1, wherein the channel is selected with reference to the entire channel list (Yamamoto Fig. 7: s11 and s12; [0038]; [0048]-[0050] - the next

channel obtained in step s11 is the next highest (or lowest) channel, as referenced by the channel map 15, the entire channel list).

As to claim 19 the combined system of Yamamoto, Soundararajan, and Yuen discloses the apparatus of claim 1, wherein the predetermined pattern of channel change inputs further comprises a first channel change input, and the control unit provides, through the output unit, content of a first channel that has a preference degree that satisfies the predetermined reference in response to the first channel change input (A user can first switch from one skip list to another (Soundararajan) by inputting a predetermined combination of channel changes (Yuen), then switch to a channel that was not on a previous skip list (Soundararajan). A user can select this channel using the same "<u>first channel change input</u>" (for example, channel up) that was used in the predetermined combination of channel changes).

1.   Claims 3 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yamamoto, Soundararajan, and Yuen as applied to claim 2 above, and further in view of Wugofski et al., US Pub No 2003/0056216.

As to claim 3 the combined system of Yamamoto, Soundararajan, and Yuen fail to disclose the apparatus of claim 2, wherein the accumulation is an accumulation of times while the user stays at each channel in each time zone.

However, in an analogous art, Wugofski discloses calculating favorite channels as a function of time that a user watches channels during certain time slots (i.e. time zones) (Paragraph 44).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the combined system of Yamamoto, Soundararajan, and Yuen with the teachings of Wugofski. The rationale for this modification would have been to adapt a favorite channels list to the fact that users watch different channels during different time slots – for example, news channels in the mornings and movie channels in the evenings.

As to claim 11 the combined system of Yamamoto, Soundararajan, and Yuen fail to disclose the method of claim 10, wherein the accumulation is an accumulation of times while the user stays at each channel in each time zone.

However, in an analogous art, Wugofski discloses calculating favorite channels as a function of time that a user watches channels during certain time slots (i.e. time zones) (Paragraph 44).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the combined system of Yamamoto, Soundararajan, and Yuen with the teachings of Wugofski. The rationale for this modification would have been to adapt a favorite channels list to the fact that users watch different channels during different time slots – for example, news channels in the mornings and movie channels in the evenings.

2.   Claims 6 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over
Yamamoto, Soundararajan, and Yuen as applied to claim 1 above, and further in view
of Taylor, US Pub No 2005/0278648.

       Claims 6 and 14 call for changing to the next consecutive channel whose
calculated preference degree does not satisfy the predetermined reference (i.e. is not a
favorite channel) by inputting 'channel up' or 'channel down' as a channel change input
for a predetermined period of time. In making selections in the television environment it
is typical in the art to press and hold a key to activate a desired function. For example,
Taylor discloses that a key can be pressed and held for a period of time to perform a
function different from the function normally assigned to that key (Paragraph 56 - the
mute key can be pressed and held to change transparency of an EPG).
       It would have been obvious to one of ordinary skill in the art to modify the
combined system of Yamamoto, Soundararajan, and Yuen to allow for a key to be
pressed and held in order to switch between a "favorite channel list" and an "entire
receivable channel list." The rationale for this modification would have been to allow
this function to be initiated without providing any additional special function keys, and
thereby avoiding cluttering a user input device with extra keys.

                                    Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ROBERT HANCE whose telephone number is (571)270-5319. The examiner can normally be reached on M-F 8:00-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kristine Kincaid can be reached on (571) 272-4063. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

ROBERT HANCE
Examiner
Art Unit 2421

/ROBERT HANCE/
Examiner, Art Unit 2421